

## ABSTRACT OF THE DISCLOSURE

An elastic wave generator comprising an excitation coil (36), a magnetostriction oscillator (34) around which the excitation coil is wound and an oscillator support (22). The excitation coil is wound around the oscillator (34) which is made of a lamination of magnetostriction sheets having a metallic crystalline structure which exhibits positive strain characteristics in which its length varies directionally upon magnetic excitation. The oscillator support (22) has a first support surface (1A) shrink-fit against a first end surface (34A) of the magnetostriction oscillator (34) intersecting the direction along which the length of the magnetostriction oscillator (34) changes and a second support surface (1B) shrink-fit against a second end surface (34B) of the magnetostriction oscillator (34) intersecting the direction along which the length of the magnetostriction oscillator (34) changes. Thus, the changes in the length of the magnetostriction oscillator (34) due to the magnetic excitation of the excitation coil (36) appearing at the first and second end surfaces (34A, 34B) is directly supported by the first and second support surfaces (1A, 1B).